

US Army Corps of Engineers_®

Engineer Research and Development Center

Topographic Engineering Center Source Acquisition Team (SAT)

Description and Background

The Topographic Engineering Center (TEC) Source Acquisition Team was established in 2004 to provide image and map support to the Army community.

The mission of the SAT is twofold. First, to produce orthorectified image bases utilizing both commercial and NTM sources, to support the requirements of the Urban Tactical Planner (UTP) program. The SAT's second mission is to maintain and disseminate National Geospatial-Intelligence Agency (NGA) data, TEC produced image and map products such as UTP's, UTP Fly-throughs, and Buckeye imagery and associated

LIDAR, to fielded U.S. Army Topographic Systems and other Army customers through our Common Map Background (CMB) program.

Key Capabilities



The SAT has produced numerous image base products, filling a niche that was needed to support the war-fighter and the Army. There are more than 1500 cities on the 2006 UTP requirements list. The goal is to produce image bases of all 1600 cities by merging elevation information with imagery to produce both an orthophoto product and a Terra-Explorer fly-through. These UTP fly-throughs depict not only the urban area, but the outlying terrain as well. NGA's Controlled Image Base (CIB) and Digital Terrain Elevation Data (DTED) are used for the initial fly-through production so as to provide the Army users a product they can use now. In addition to the CIB/DTED produced fly-throughs, the higher priority cities have image bases produced with higher resolution imagery, Analysts download National Technical Means (NTM) imagery, produce high-resolution orthophoto image bases, and declassify the output product to FOUO by using an Image Derived Product (IDP) process. If available, the analyst will use commercial imagery such as Quickbird or Ikonos in lieu of NTM. These final mosaicked image bases are provided to the UTP team for production of full or partial UTP's and will replace the initial CIB/DTED image bases and fly-throughs as they are finalized.

In addition to the UTP image base production mission, the SAT is responsible for the dissemination of NGA map and image data through the CMB program. TEC has ingested all formats of NGA data into the CMB database, to include CADRG, CIB, DTED, SRTM, etc. Data is extracted using the data export tool by geographic footprint, country boundary, or by a buffer around a road, city, river, etc. Custom datasets are produced to satisfy specific requests, and additional TEC produced products such as UTPs, country fly-throughs, and Buckeye imagery and LIDAR can be disseminated as well. In conjunction with the CMB program, the SAT team has the ability to reformat and provide map data for display on the Defense Advanced Global Positioning System Receiver (DAGR).

Current Status

Currently, the SAT has over 400 CIB/DTED UTP fly-throughs posted on TEC's SIPRnet, PKI, and JWICs websites. In addition, the SAT team has produced more than 75 high resolution image bases, to include the production of new image bases for all the Iraqi cities.

The SAT CMB analysts have, and continue to fulfill requests for numerous Army customers, including among them, Corps of Engineers offices, INSCOM, JFCOM and Special Forces. These requests have included city and/or country datasets, up to entire Army AOR's, and are distributed on CD, DVD or Firewire drive.

Point of Contact

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